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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,361	07/18/2003	Arthur T. Nemirow	BII 0113 PUS	5050
22045	7590	10/18/2005	EXAMINER	
BROOKS KUSHMAN P.C. 1000 TOWN CENTER TWENTY-SECOND FLOOR SOUTHFIELD, MI 48075			VU, JIMMY T	
			ART UNIT	PAPER NUMBER
			2821	

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/623,361	<b>Applicant(s)</b> NEMIROW ET AL.	
	<b>Examiner</b> Jimmy T. Vu	<b>Art Unit</b> 2821	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 July 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-11 is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

Despite applicant's disagreement, the examiner decides to provide new rejection as below. Other references have been incorporated to strengthen the examiner's position with respect to the fluorescent lamp electronic ballast having the combination of features including the power factor correction flyback circuit and the inverter ballast circuit.

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Phadke (U.S. Patent number 6,788,557 B2) in view of Gu (U.S. Patent number 5,907,223).

Regarding claim 1, Gu discloses a fluorescent lamp electronic ballast comprising:  
a power factor correction flyback circuit (200) composed of a rectifier (220)  
connected to a DC to DC flyback converter (265) , the flyback converter (265) including

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a flyback transformer (228) connected to a diode/capacitor combination (202, 232, 234), the flyback converter including a switch (212) used to switch the flyback transformer during operation to produce a flyback waveform that is rectified by the diode (232) and results in a DC output at the capacitor (234) (Fig. 3A-3B; col. 5, lines 35-67; col. 6, lines 10-45); and

Phadke does not teach an inverter ballast circuit receiving the DC output and converting the DC output to an AC signal for operating the fluorescent lamp. However, as evidenced by Gu, providing the inverter ballast circuit (30) (Figs. 1 and 2, col. 1, lines 38-53) receiving the DC output and converting the DC output to an AC signal is well known in the art. Therefore, it would have been obvious to an ordinary skill in the art at the time of the invention to provide the device of Phadke with the inverter ballast circuit as taught by Gu in order to deliver the high frequency AC power to the lamp from the DC output voltage of the flyback converter for operating the light system.

Regarding claim 2, the combination of Phadke and Gu discloses the fluorescent lamp electronic ballast wherein the rectifier receives an AC input having a varying frequency and the rectifier has a sufficiently low input capacitance such that the rectifier output substantially takes the form of a rectified AC wave (Figs. 3A-3B of Phadke and Figs. 1-2 of Gu).

Regarding claim 3, the combination of Phadke and Gu discloses the fluorescent lamp electronic ballast wherein the flyback converter is configured to operate in a transition mode (Figs. 3A-3B of Phadke).

Regarding claim 4, the combination of Phadke and Gu discloses the fluorescent lamp electronic ballast wherein the flyback converter includes a control loop (B) configured to monitor the flyback transformer and switch the flyback transformer asynchronously as needed to maintain energy balance (Figs. 1-2 of Gu).

Regarding claim 5, the combination of Phadke and Gu discloses the fluorescent lamp electronic ballast wherein the control loop is connected to the DC output (DC) (Figs. 1-2 of Gu).

#### ***Allowable Subject Matter***

4. Claims 6-11 are allowed.

None of the prior art teaches the fluorescent lamp electronic ballast wherein the rectifier receives an AC input having a frequency that varies to frequencies exceeding 300 Hz and has an input capacitance of less than 0.5 microfarads.

#### ***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy T Vu whose telephone number is (571) 272-1832. The examiner can normally be reached on M - F: 9 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2800.

Jimmy Vu

October 11, 2005

  
**TUYET VO**  
**PRIMARY EXAMINER**